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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,537	01/20/2004	Toshio Mizue	50395-245	7112

7590 05/11/2005
MCDERMOTT, WILL & EMERY
600 13th Street, N.W.
Washington, DC 20005-3096

EXAMINER

PAK, SUNG H

ART UNIT PAPER NUMBER

2874

DATE MAILED: 05/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/759,537

Applicant(s)

MIZUE ET AL.

Examiner

Sung H. Pak

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 0604.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Information Disclosure Statement

Information disclosure statement filed 6/24/2004 has been considered.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-6, 8-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuribayashi et al (US Patent 5,802,230).

Kuribayashi discloses an optical device with all the limitations set forth in the claims, including: an optical module mating with an optical connector that includes an optical fiber (Fig. 6), comprising: an optical sub-assembly having a head portion (Fig. 7), said optical sub-assembly including an optical semiconductor device therein ('16' Fig. 7); an optical receptacle having a cavity for receiving said optical connector ('66' Fig. 6) and a space for receiving said optical sub-assembly (Fig. 6); and an elastic member disposed between said optical receptacle and

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said optical sub-assembly wherein said elastic member enables said head portion of said optical sub-assembly to displace within said cavity ('58' Fig. 7);

wherein said receptacle includes a groove in an inner wall surface thereof (see '80H' Fig. 7), said groove having a front surface and a rear surface, and said optical sub-assembly includes a flange ('90' Fig. 7) in an outer surface thereof, and wherein said flange and said elastic member is disposed within said groove such that said elastic member is sandwiched between said flange and said front surface of said groove (Fig. 7);

further comprising a bracket disposed between said flange and said rear surface of said groove, wherein said bracket aligns said optical sub-assembly with said optical receptacle ('86' Fig. 7);

wherein said elastic member comprises a ring portion ('124A') and a plurality of limb portions ('124B + 64'' Fig. 13-14) extending from said ring portion to an inside thereof, and warping from said ring portion, said plurality of limb portions being in contact with said front surface of said groove and said ring portion being in contact with said flange (Fig. 13);

wherein said receptacle further includes a groove in an inner wall surface thereof ('80G' Fig. 7) and said optical sub-assembly further includes a groove in an outer surface thereof, said groove of said optical sub-assembly having a front groove surface (on '92' Fig. 7) and a rear groove surface (stepped portion of '90' is a groove; Fig. 7), and said optical module further includes a bracket ('62' Fig. 7) disposed in said groove of said optical receptacle, said bracket being in contact with said front groove surface of said optical sub-assembly and said elastic member being disposed between said rear groove surface of said optical sub-assembly and said bracket (Fig. 7);

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including a partition wall ('62' Fig. 7) for dividing said cavity from said space, and said optical sub-assembly further includes a flange in an outer surface thereof ('90' Fig. 7); wherein said head portion protrudes to said cavity by passing through said partitioning wall, and said elastic member is disposed between said partition wall and said flange (Fig. 7);

wherein said optical sub-assembly further includes a sleeve ('60' Fig. 7) and a coupling fiber ('82' Fig. 7) optically coupled to said optical semiconductor device, wherein said optical connector includes a ferrule securing said optical fiber therein (Fig. 6); and wherein said optical fiber secured in said optical connector is physically in contact with said coupling fiber when said ferrule of said optical connector mates with said sleeve of said optical sub-assembly (Fig. 6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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Claims 4,7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuribayashi et al (US Patent 5,802,230).

Kuribayashi discloses an optical device with all the limitations set forth in the claims as discussed above, except it does not explicitly teach the use of O-ring as an elastic member. However, the use of an O-ring as an elastic member in optical fiber connector devices is well known and common in the art. O-rings are considered advantageous and desirable in the art because they provide simple and accurately dimensioned elastic member that are very cheap to manufacture. Therefore, the use of O-rings allow for optical devices that have precise component dimensions that are cheap to produce. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the Kuribayashi device to have O-ring as the elastic member.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yamane et al (US 6,126,325) discloses an optical module mating with optical connector.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sung H. Pak whose telephone number is (571) 272-2353. The examiner can normally be reached on Monday- Friday, 9AM-5PM.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sung H. Pak
Patent Examiner
Art Unit 2874

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